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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/239,659	01/29/1999	THOMAS A. DYE	5143-01700	6412

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EXAMINER
KIM, HONG CHONG

ART UNIT	PAPER NUMBER
2187	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/239,659	Applicant(s) DYE ET AL.	
	Examiner Hong C Kim	Art Unit 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 January 1999* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-70 and 95-122* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-70 and 95-122* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 January 1999* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2, 4, 5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Detailed Action

1. Claims 1-70 and 95-122 are presented for examination. This office action is in response to the application filed on 1/29/99.

2. Receipts are acknowledged of information disclosure statements filed on 2/26/99, 7/12/00, and 7/24/00, which the statements have been placed of record in the file. Information disclosed and listed on PTO 1449 were considered.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title should be more specific to differentiate the invention from similar inventions in the patent literature. "Lossless and lossy compressions" aspects of the invention should be mentioned in the title so that the title is more descriptive.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, and 26 are rejected under 35 USC 102(b) as being anticipated by *Dawon*,

U.S. Patent 5,553,160.

As to claim 1, *Dawson* discloses the invention as claimed. *Dawson* discloses a method for storing data in a memory(abstract line 6) in a computer system (Fig. 1A), the method comprising: receiving uncompressed data (Fig. 1B); determining a compression mode for the data, wherein the compression mode comprises one of lossless compression, lossy compression, or no compression (abstract lines 12-18); selectively compressing the uncompressed data, wherein the compressing is selectively performed in response to the compression mode for the data; and storing the data in the memory (abstract lines 12-18).

As to claims 2-3, Dawson further discloses the three compression format (abstract).

As to claim 26, *Dawson* discloses the invention as claimed. *Dawson* discloses a computer system utilizing storage of data, the computer system (Fig. 1 A) comprising: a system memory (abstract line 6); a memory controller includes a compression/decompression (Fig. 1B and col. 8 lines 20-30); receiving uncompressed data (Fig. 1B); determining a compression mode for the data, wherein the compression mode comprises one of lossless compression, lossy compression, or no compression (abstract lines 12-18); selectively compressing the uncompressed data, wherein the compressing is selectively performed in response to the compression mode for the data; and storing the data in the memory (abstract lines 12-18).

6. Claim 31, 35, and 37 are rejected under 35 USC 102(b) as being anticipated by Pelanek et al. (Pelanek) US Patent 5,724,582.

As to claims 31, 35, and 37, Pelanek discloses the invention as claimed. Pelanek discloses a method for storing data in a memory in a computer system (Fig. 3), the method comprising: receiving uncompressed data (Fig. 3); receiving one or more destination addresses indicating a storage destination (Fig. 5 and abstract); determining a compression mode for the data (Fig. 5 and abstract); selectively compressing the data (Fig. 5 and abstract); and storing the data (Fig. 5 and abstract).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 4-18, 27-30 and 95-122 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dawon*, U.S. Patent 5,553,160 in view of Pelanek et al. (Pelanek) US Patent 5,724,582.

As to claims 4 and 27, Dawson discloses the invention as claimed in the above. However, Dawson does not specifically disclose address range and/or a data type of the data. Pelanek discloses address range and/or a data type of the data (Fig. 5 and abstract) for the purpose of increasing the access speed (col. 6 lines 44-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate address range and/or a data type of the data as shown in Pelanek into the invention of Dawson because it would allow to increase the access speed.

As to claim 5, Dawson and Pelanek disclose the invention as claimed in the above. Pelanek further discloses analyzing the one of more destination addresses to determine the compression mode (col. 6 lines 44-55).

As to claims 6-8, Dawson and Pelanek disclose the invention as claimed in the above. Pelanek further discloses first, second, and third address ranges (col. 6 lines 44-55).

As to claim 9, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses requesting agents (col. 8 lines 20-30).

As to claim 10, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses video driver (col. 8 lines 20-30 and abstract).

As to claims 11-12, Dawson and Pelanek disclose the invention as claimed in the above. Pelanek further discloses types of data (col. 6 lines 44-55).

As to claim 13, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses the system memory (abstract).

As to claim 14, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses a comp/decomp engine (col. 8 lines 20-30).

As to claims 15-18, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses selectively decompressing the data (col. 8 lines 20-30 and abstract).

As to claim 27, Dawson discloses the invention as claimed in the above. However, Dawson does not specifically disclose address range and/or a data type of the data. Pelanek discloses address range and/or a data type of the data (Fig. 5 and abstract) for the purpose of increasing the access speed (col. 6 lines 44-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate address range and/or a data type of the data as shown in Pelanek into the invention of Dawson because it would allow to increase the access speed.

As to claim 28, Dawson and Pelanek disclose the invention as claimed in the above. Pelanek further discloses memory controller is operable to receive one or more destination addresses and to analyze the one of more destination addresses to determine the compression

mode (col. 6 lines 44-55).

As to claim 29, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses requesting agents (col. 8 lines 20-30).

As to claim 30, Dawson and Pelanek disclose the invention as claimed in the above. Pelanek further discloses types of data (col. 6 lines 44-55).

As to claim 95, Dawson discloses the invention as claimed. Dawson discloses a method for storing data in a memory(abstract line 6) in a computer system (Fig. 1A), the method comprising: allocating a memory block (abstract); receiving uncompressed data (Fig. 1B); compressing the uncompressed data (abstract lines 12-18); and storing the data in the memory (abstract lines 12-18). However, Dawson does not specifically disclose destination addresses. Pelanek discloses destination addresses (Fig. 5 and abstract) for the purpose of increasing the access speed (col. 6 lines 44-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate destination addresses as shown in Pelanek into the invention of Dawson because it would allow to increase the access speed.

As to claims 96-97, Dawson further discloses the storing does not perform address translation of the one or more destination addresses (system memory in abstract reads on this limitation since physical memory does not require to have a translator).

As to claims 98-99, Dawson further discloses OS (Fig. 1A).

As to claims 100-106, Dawson further first data (abstract) and system memory (abstract).

As to claims 107 and 108, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses OS (Fig. 1A) and first size (abstract).

As to claim 109, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses compression/decompression engine (col. 8 lines 20-30).

As to claims 110-111, Dawson further discloses the storing does not perform address translation of the one or more destination addresses (system memory in abstract reads on this limitation since physical memory does not require to have a translator).

As to claims 112-113, Dawson further discloses OS (Fig. 1A).

As to claims 114-118, Dawson further first data (abstract) and system memory (abstract).

As to claims 119 and 121, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses predetermined compression ration (loseless, lossy and no compressions in abstract read on this limitation since each compression has different ratio) .

As to claim 120, Pelanek further discloses the storing does perform address translation of the one or more destination addresses (Fig. 5).

As to claims 122, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses OS (Fig. 1A) and first size (abstract).

9. Claim 32-34, 36, 38-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pelanek et al. (Pelanek) US Patent 5,724,582 in view of *Dawon*, U.S. Patent 5,553,160.

As to claim 33, Pelanek discloses the invention as claimed in claim 31. Dawson further discloses agent (col. 8 lines 20-30).

As to claims 32, 34, 36 and 38, Pelanek discloses the invention as claimed in the above. However, Pelanek does not specifically disclose loseless, lossy and no compressions. Dawson discloses loseless, lossy and no compressions (abstract) for the purpose of optimizing transferring

discloses loseless, lossy and no compressions (abstract) for the purpose of optimizing transferring different images or data (col. 3 lines 10-15).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate loseless, lossy and no compressions as shown in Dawson into the invention of Pelanek because it would optimize transferring different images or data.

As to claims 39, Dawson and Pelanek disclose the invention as claimed in the above Pelanek further discloses address range and/or a data type of the data (Fig. 5 and abstract).

As to claim 40, Dawson and Pelanek disclose the invention as claimed in the above. Pelanek further discloses analyzing the one of more destination addresses to determine the compression mode (col. 6 lines 44-55).

As to claim 41, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses requesting agents (col. 8 lines 20-30).

As to claims 42, Dawson and Pelanek disclose the invention as claimed in the above. Pelanek further discloses types of data (col. 6 lines 44-55).

As to claim 43, Dawson and Pelanek disclose the invention as claimed in the above.

Dawson further discloses the system memory (abstract).

As to claim 44, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses a comp/decomp engine (col. 8 lines 20-30).

As to claims 45-46, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses selectively decompressing the data (col. 8 lines 20-30 and abstract).

10. Claims 19-25 and 47-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dawon*, U.S. Patent 5,553,160 in view of Canfield et al. (Canfield) US Patent 5,847,762.

As to claim 19, Dawson discloses the invention as claimed in the above. However, Dawson does not specifically disclose storing compression mode. Canfield discloses storing compression mode (col. 5 lines 15-40) for the purpose of proper decompression (col. 5 lines 35-40)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate storing compression mode as shown in Canfield into the invention of Dawson because it would allow proper decompression.

As to claims 20-21, Dawson and Canfield disclose the invention as claimed in the above. Canfield further discloses compression mode is embedded in the data (col. 5 lines 15-40).

As to claims 22-23, Dawson and Canfield disclose the invention as claimed in the above. Canfield further discloses selectively decompressing the data (col. 5 lines 15-40).

As to claims 24-25, Dawson and Canfield disclose the invention as claimed in the above. Canfield further discloses a header and selectively decompressing the data (col. 5 lines 15-40).

As to claims 47, 51, 54, and 70, Dawson and Canfield disclose the invention as claimed in the above. Canfield further discloses a header (col. 5 lines 15-40) and compression mode (col. 5 lines 15-40).

As to claims 48, 52, 53, and 57, Dawson and Canfield disclose the invention as claimed in the above. Dawson further discloses decompression (col. 8 lines 20-30).

As to claim 49, 50, 55 and 56, Dawson and Canfield disclose the invention as claimed in the above. Dawson further discloses loseless, lossy, and no compressions (abstract).

As to claim 58, Dawson and Canfield disclose the invention as claimed in the above. Canfield further discloses a header (col. 5 lines 15-40) and determine size and allocate compression mode (col. 5 lines 15-40).

As to claims 59-69, Dawson and Canfield disclose the invention as claimed in the above. Canfield further discloses a header (col. 5 lines 15-40) and Dawson further discloses block size (abstract).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

12. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 USC 133, MPEP 710.02, 710.02(b)).

13. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. § 1.111(c).

14. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

15. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hong Kim whose telephone number is (703) 305-3835. The Examiner can normally be reached on the weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Do Yoo, can be reached on (703) 308-4908.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3800.

16. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to TC-2100:
After-final (703) 746-7238
Official (703) 746-7239 (for formal communications intended for entry)

Non-Official/Draft (703) 746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

HK
Primary Patent Examiner
August 1, 2002

HONG CHONG KIM
PRIMARY EXAMINER